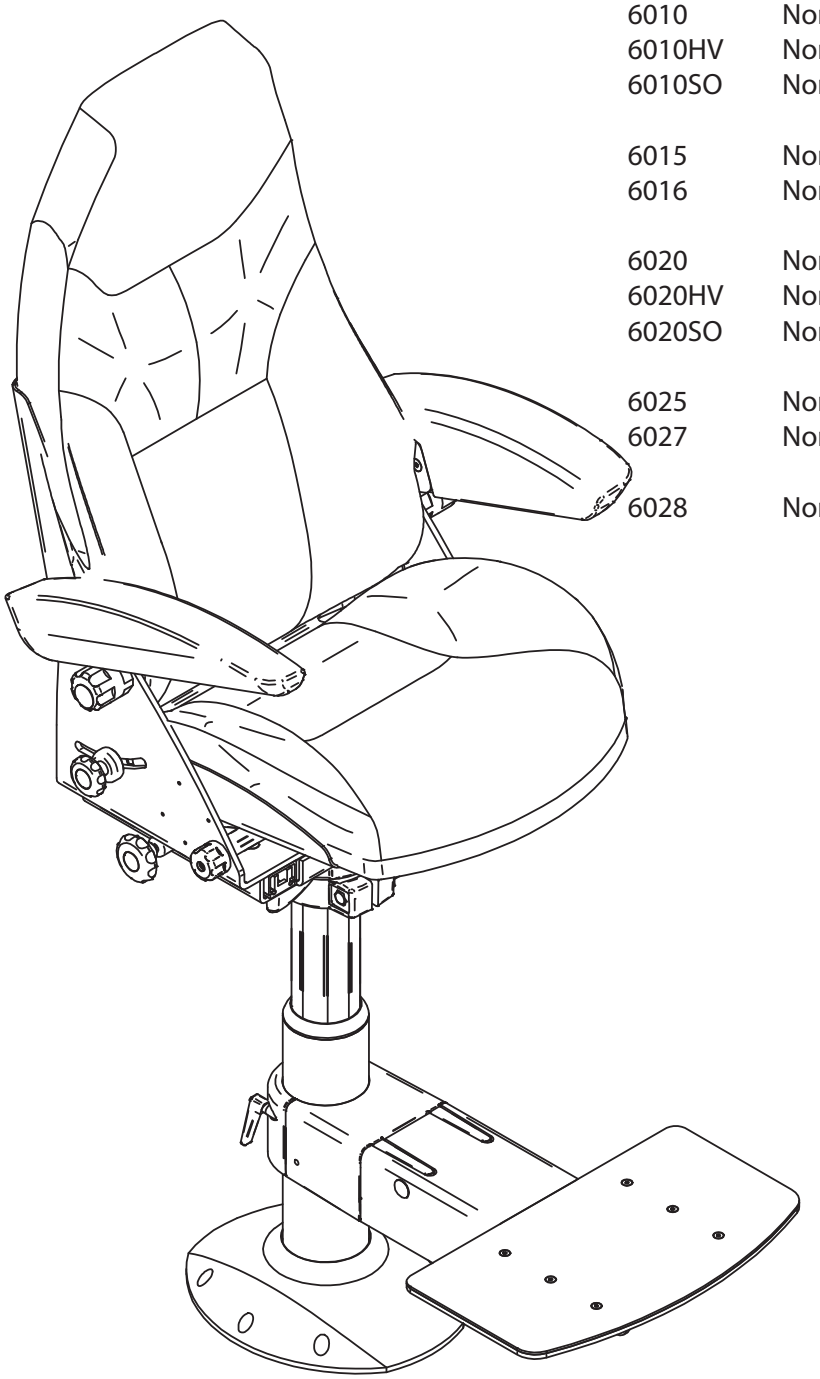
Users Manual
NorSap 1000

March 16, 2012 2:24 PM

This user manual contains the following models:

6000	NorSap 1000 Standard H88cm
6000HV	NorSap 1000 Standard Yacht White
6000SO	NorSap 1000 Standard Yacht Black
6005	NorSap 1000 Standard H38cm without foot rest
6010	NorSap 1000 Comfort H69-90cm
6010HV	NorSap 1000 Comfort Yacht White
6010SO	NorSap 1000 Comfort Yacht Black
6015	NorSap 1000 Office Standard H80cm
6016	NorSap 1000 Office Standard without foot rest
6020	NorSap 1000 Comfort H63-77cm
6020HV	NorSap 1000 Comfort Yacht White
6020SO	NorSap 1000 Comfort Yacht Black
6025	NorSap 1000 Office Comfort
6027	NorSap 1000 Office Comfort
6028	NorSap 1000 Suspension Column



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Introduction

Congratulations with your purchase of a NorSap chair and thank you for your confidence in our company products. NorSap is among the leading producers of helmsmen and operator seats for the maritime market.

This manual will assist you in making the best use of the functional capabilities of the NorSap chair and will ensure you will quickly become familiar with its use. If you have any questions regarding the safe and effective operation of you NorSap chair or accessories after reading this manual, immediately contact our head office marketing department for further assistance.

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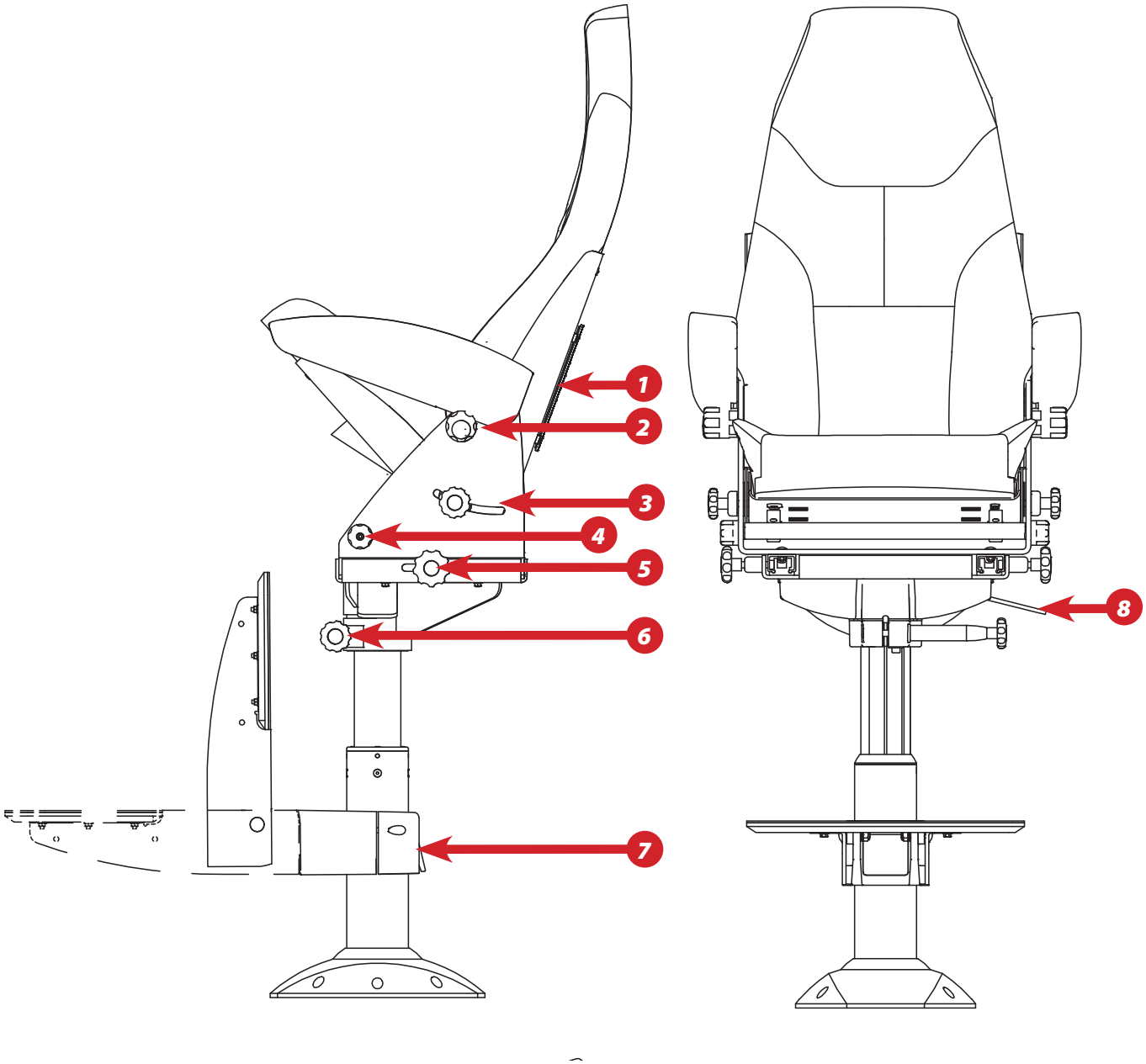
Functions of the NorSap 1000 chair



1. Packing net on backside of chair (This document should be stored here)
2. Eccentric adjustment of armrest angle (Armrests can be tilted to an upright position)
3. Back rest adjustment release/tighteners
4. Seat angle adjustment (Seat can be tilted to an upright position)
5. Seat forward/aft adjustment
6. Swivel/turn release of chair top
7. Foot rest height adjustment release (Foot rest can be tilted to an upright position)
8. Column height adjustment gas strut release (Not applicable in all models)

Replacing seat pillows

If your upholstery is damaged or worn, its recommended to replace the whole part.
To re-fit new leather (or other fabric) on existing cushions is not recommended.

If the chair is intended to be used under extreme conditions, an additional seat cover is advised.
This comes in two different materials, water repellent and fabric.

Item Name	Item No.
Seat cover in fabric	6050
Seat cover in water repellent	6041
Seat cover in leather	6052

To replace the back rest cushion, unscrew the 10 marked wood-screws on the illustration below.
Replace the cushion with the new one, re-mount the cushion with the wood-screws.

To replace the seat rest cushion, flip up the seat and unscrew the 4 marked wood-screws on the illustration below. Replace the cushion with the new one, re-mount the cushion with the wood-screws.

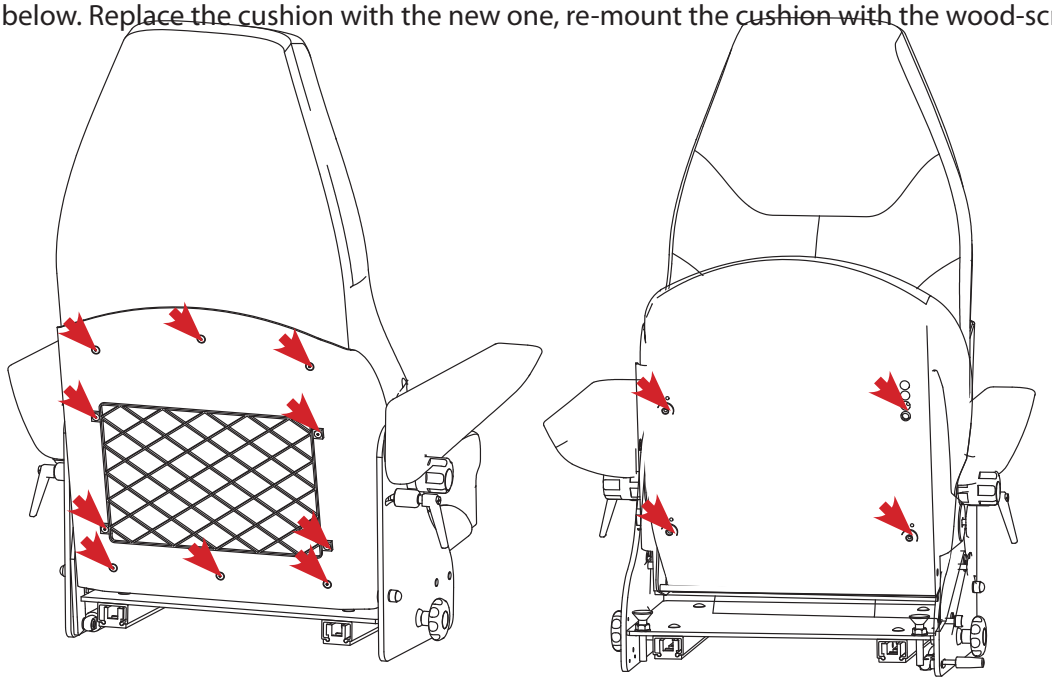


illustration shows a NorSap 1500

Replacing armrests

To replace the armrest, unzip the arm rest cover and fold it up until you gain access to the two bolts holding the armrest in place. Unscrew the bolts and dismount the old armrest then place the new armrest and tighten the bolts again.

Item Name	Item No.
NorSap 1000 Armrest in black leather Left	6051V
NorSap 1000 Armrest in black leather Right	6051H
NorSap 1000 Armrest cover in fabric (set)	6050
NorSap 1000 Armrest cover in leather (set)	6041

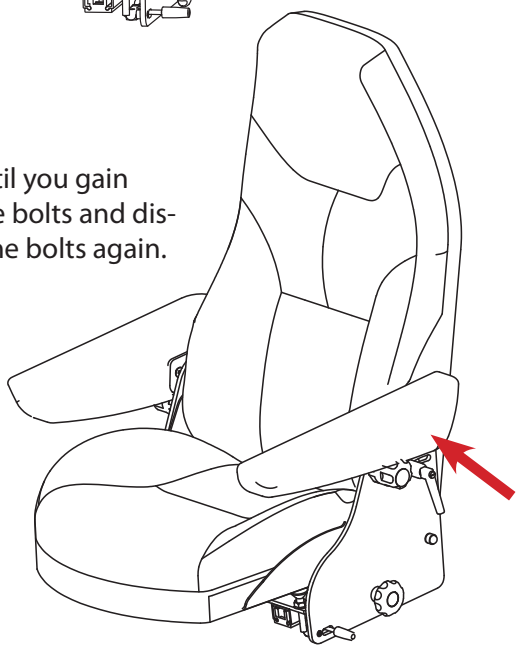


illustration shows a NorSap 1500

Securing additional seat cover

To secure seat cover, place Velcro tape on the lower back rest and underneath the seat as illustrated below.

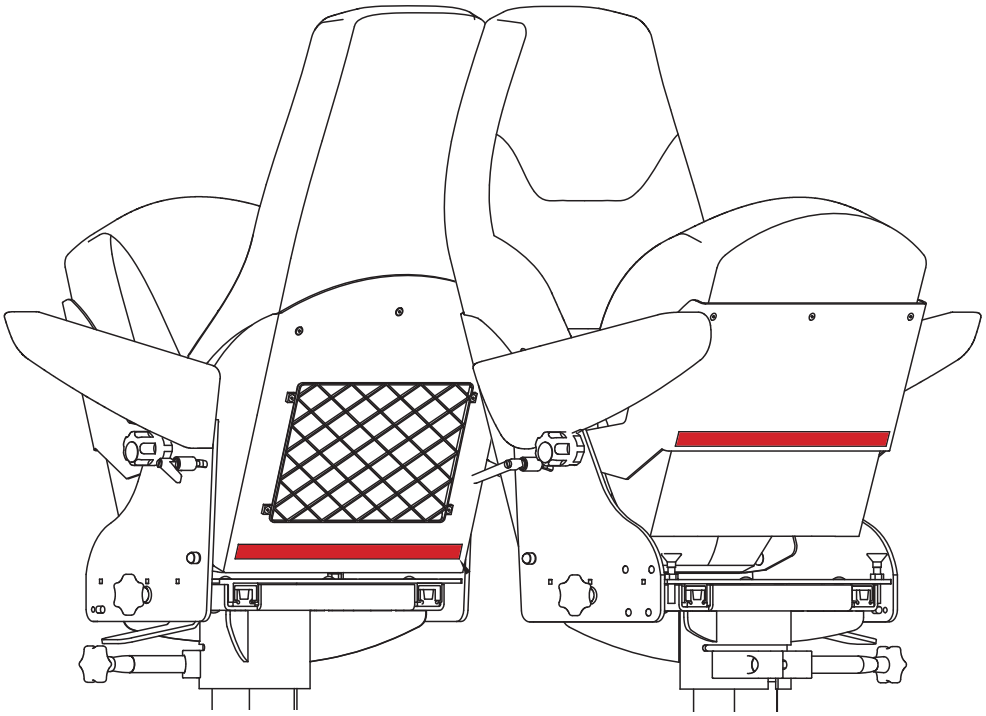


illustration shows a NorSap 1500

Care and maintenance of leather

Most leather qualities have originally received one or another type of surface protection treatment. When the furniture is taken in use, grease from hand and neck will be in contact with the leather on a regular basis. Without proper cleaning the leather will over a period of time leave grease spots or discoloration's. To avoid this clean with Soft Cleaner on a regular basis, we advise once a month. Use Leather Protection Cream or a leather cream with impregnation 2-4 times a year. This will protect against spots, increase wear resistance and preserve the leathers softness. By following these instructions you will ensure a long and lasting leather quality.

Avoid direct sunlight over a longer period of time.
Do not place a heat source within a distance of 20-30 cm.
Remove dust or vacuum, use Soft Cleaner once a month.

Contact us or an authorized leather producer or furniture dealer for more cleaning medium or for further cleaning details.

Preferred supplier of cleaning medium is: Leather Master AS - 6220 Straumgjerde - NORWAY - Tel +47 70 25 35 50 - Fax +47 70 25 35 58 - www.leathermaster.no - service@leathermaster.no

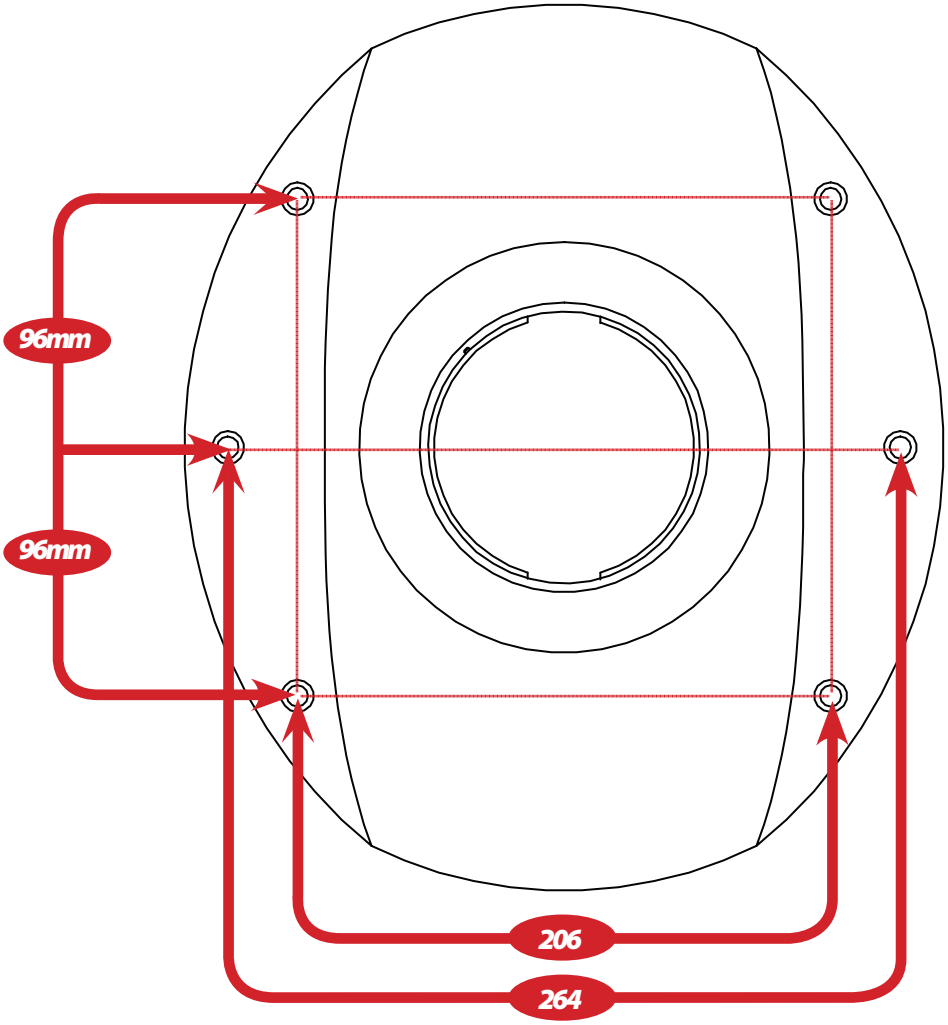
Care and maintenance of fabric

Remove dust or vacuum, use a neutral cleaning agent, such as soapy water when needed.

Mounting holes measurements

A strong and level foundation is required to secure the installation of the base.
For the suspension column chair (6028), please view page 11 for mounting details.

It may occur that during storage or transport that the telescope column fastens in the lower position. This can easily be adjusted by fastening the lockable arm for swing, lift up the release handle at the same time pull up the chair. **Use six(6) M-Ø6 bolts to mount the pedestal.**



Mounting on a deck rail

First make sure to have mounted the deck rail according to its user manual.

The bolts for mounting the chair to the deck rail is already in place on the carrier wagon.

- If you have an electrical deck rail and the cabling of the switch is done by quick-connections already implemented in the chairs column.
- If you have a manual deck rail with release from seated position, the mounting of the release lever is shown in the deck rails user manual.
- If you have a basic deck rail, the wiring and mounting of the release lever is shown in the deck rails user manual.

Cabling of extra equipment in armrests

The diagram below shows how to cable the wires thru the chair and column.

Receiving the chair prepped for additional equipment in the armrests,
the wiring of your equipment should follow these steps.

1. Release the hand wheel (**pos 1**) holding the equipment holder in place.
2. Mount your equipment, making sure the cable is going thru the pipe.
3. Pull the cables out from underneath the arm rest (**pos 2**), open the zipper to gain access.
4. Use a flexible cable channel (**pos 3**) to secure the cables
   going from the armrest all the way to the column top. Leave enough play for chair adjustments.
5. Either use existing holes underneath the square top of the column (**pos 6**) or
   drill new holes corresponding with the size of the cables / cable channel (**pos 5**).
6. Place the cables thru the column top. **Make sure to have enough play of the cables to compensate adjustments of the seat, swivel (see # 10) and height** (**pos 4**).
7. Find a suitable place to strip tight the cables (**pos 8**).
8. The cable is connected to further wiring solutions from under the pedestal.
   If mounted on a deck rail, please view the deck rails user manual for further info.
9. If needed, you may drill a hole in the pedestal for extraction of the cable and
   pull the cables through a designated hole in the lower part of the column. (**pos 9**)
10. To avoid breakage of cables/wires within the column, a 360° swivel restriction needs to be applied.
    Place an B415-M8x16 bolt (**pos 10**) with a B480-M8 washer.

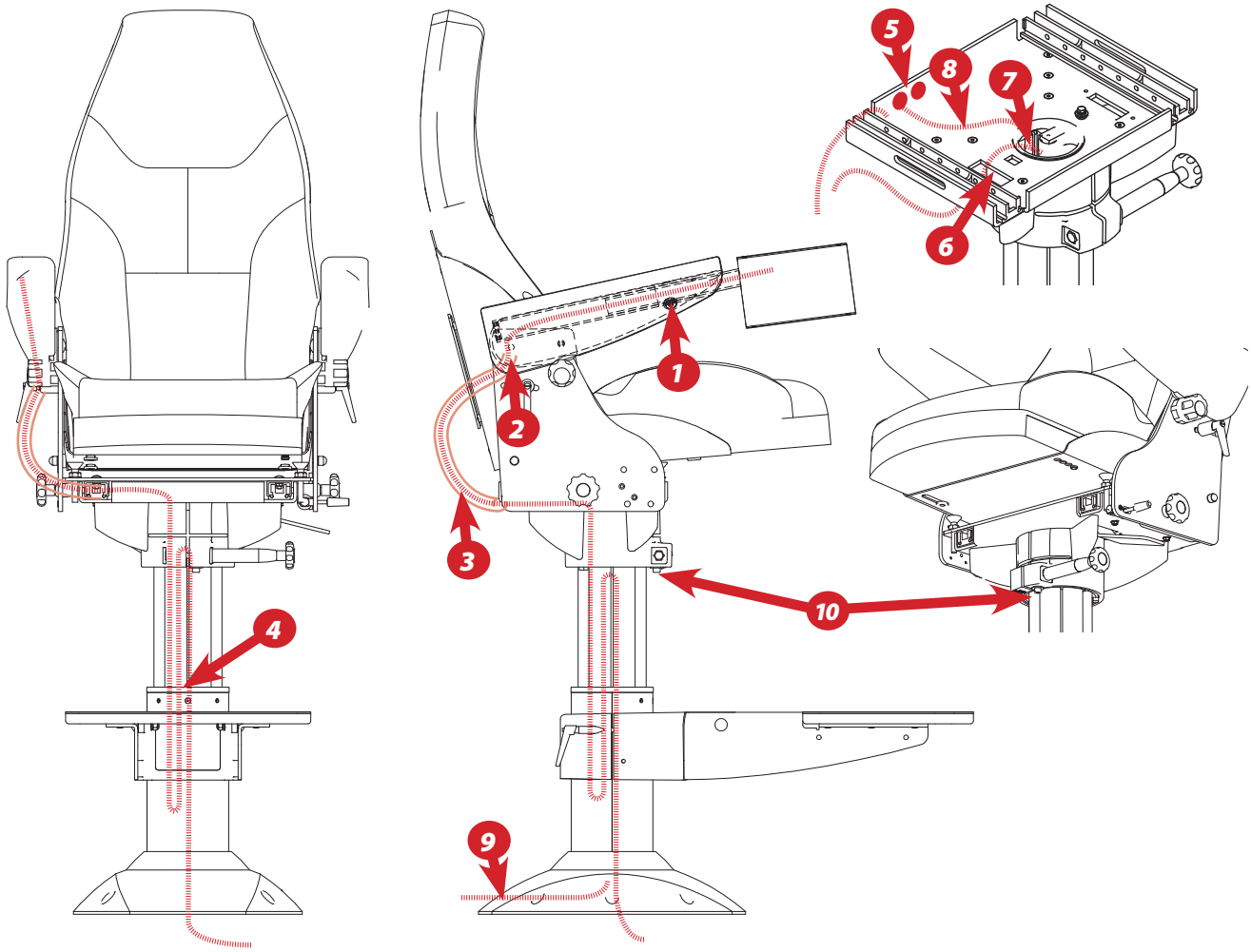
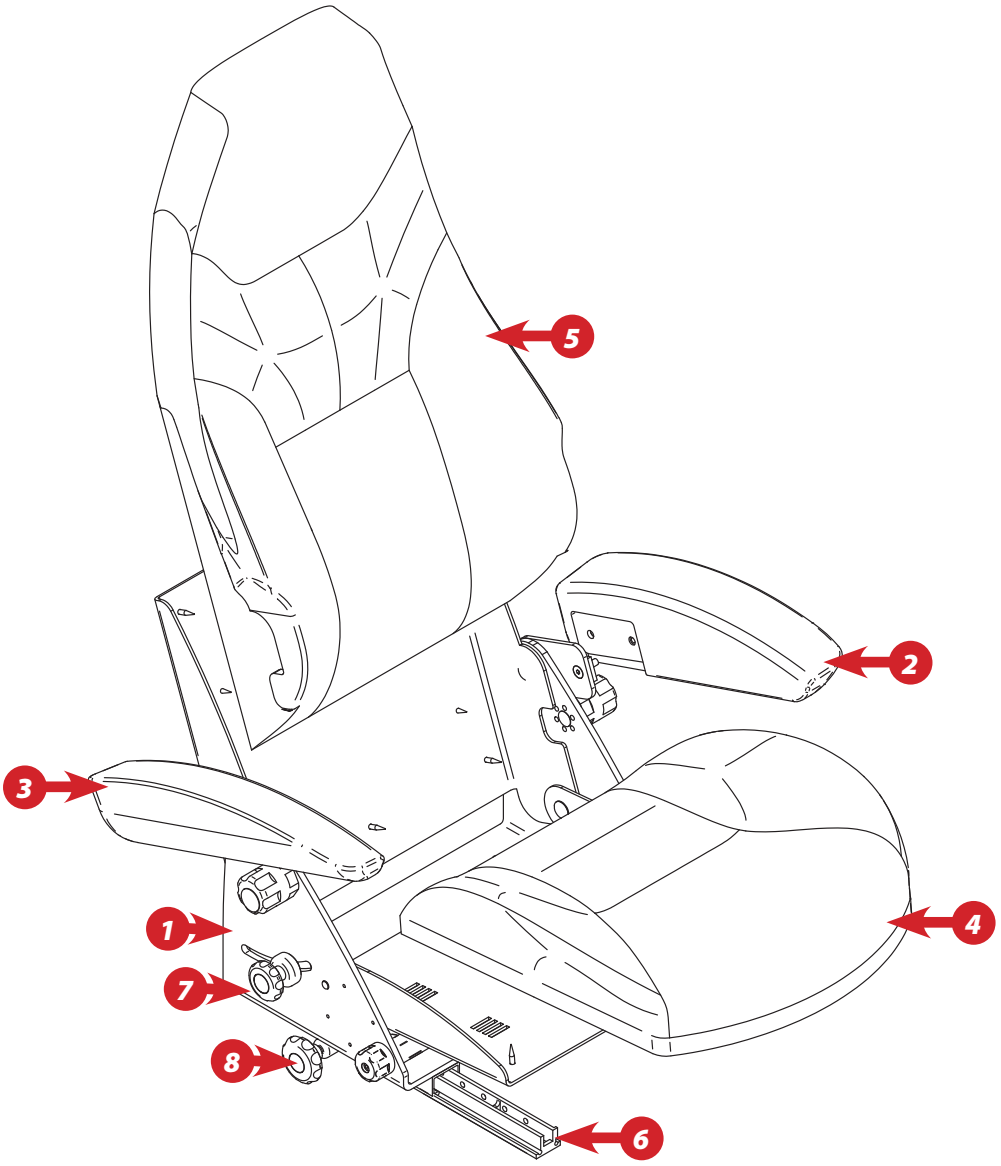


illustration shows a NorSap 1500 chair

Detailed Part lists

Seat top - R-0009

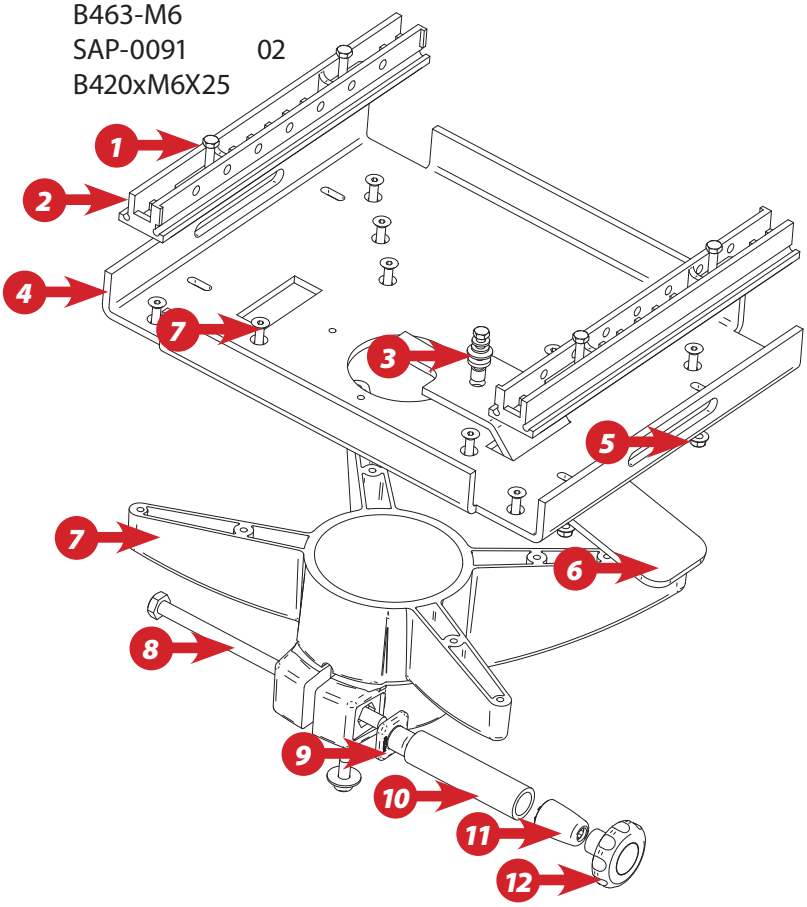


Pos.	Qty	Item Name	Item No.	Rev.	Details
1	1	SEAT FRAME ASSEMBLY FOR NS1000	DEL-084	A-10	
2	1	ARMREST NS1000 LEFT SIDE	DEL-144V		
3	1	ARMREST NS1000 RIGHT SIDE	DEL-144H		
4	1	SEAT REST NS1000	PUTE-004		
5	1	BACK REST NS1000	PUTE-003		
6	2	GLIDE RAIL PLASTIC	MP156	0-4	
7	2	HAND WHEEL FOR BACK REST ADJ.	RATT-028		
8	2	HAND WHEEL FOR SEAT ADJ.	RATT-030		

Square top - DEL-2011

Detailed view of the square top mounted on the column

Pos.	Qty	Item Name	Item No.	Rev.	Details
1	4	Hex machine screw M6x20	B411-M6X20	04	
2	2	Glider PVC	MP156	01	
3	2	Washer M6	B481-M6		
	1	Washer L M6	B480-M6		
	1	Spacer shell	SAP-0054	01	
	1	Washer soft PVC	B783-M6		
4	1	Machined square top	SAP-7040	01	
5	4	Nut 'Selflock' M6	B463-M6		
6	1	Release handle	SAP-0091	02	
7	10	Unbraco countersunk	B420xM6X25		



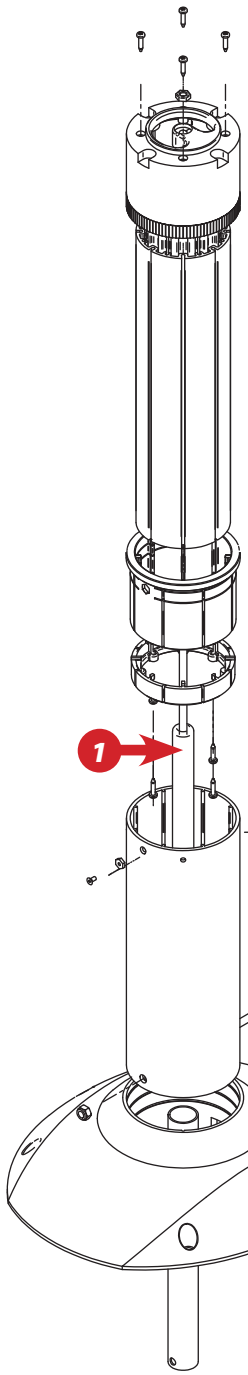
Pos.	Qty	Item Name	Item No.	Rev.	Details
7	1	Machined column top	SAP-7158	02	
8	1	Hex machine screw M10x220	B310-M10x200	02	
9	1	Cylinder support	SAP-8042	01	
10	1	Spacer shell	SAP-5096	01	
11	1	Shell	MP161	01	
12	1	Hand wheel	RATT-028	01	

Columns - All models

To find out what model your chair is flip up the seat and view the sticker underneath.

Pos.	Qty	Item Name	Item No.	Rev.	Details
		For article no.: 6010, 6010HV, 6010SO			
		Complete column H69-90cm	**DEL-3651**	**01**	
		Complete column White	R-0001HV	01	
		Complete column Black	R-0001SO	01	
1	1	Replacement gas strut	GAS-026		
		For article no.: 6020, 6020HV, 6020SO			
		Complete column H63-77cm	**DEL-3655**	**01**	
		Complete column White	R-0008HV	01	
		Complete column Black	R-0008SO	01	
1	1	Replacement gas strut	GAS-002		
		For article no.: 6000, 6005 (not height adjustable)			
		Complete column	**R-0006**	**01**	
		Remember to state seating height at order.			

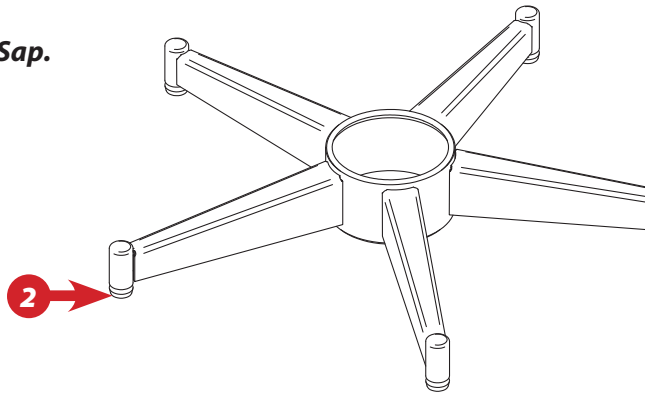
For other parts not specified please contact NorSap.



The five star legged versions of the chairs is identical as the ones with flange except for the article numbers and the base and a slightly different height.

2	5	Foot rest padding	STL-006
2	1	Wheel set (5) for Office chairs	R-0077
	1	'Twist-lock' Mounting set	R-0073
		For article no.: 6025, 6000 (not height adjustable)	
		Complete column	**R-0027**	**01**
		Remember to state seating height at order.		

For other parts not specified please contact NorSap.



Suspension column - 6028

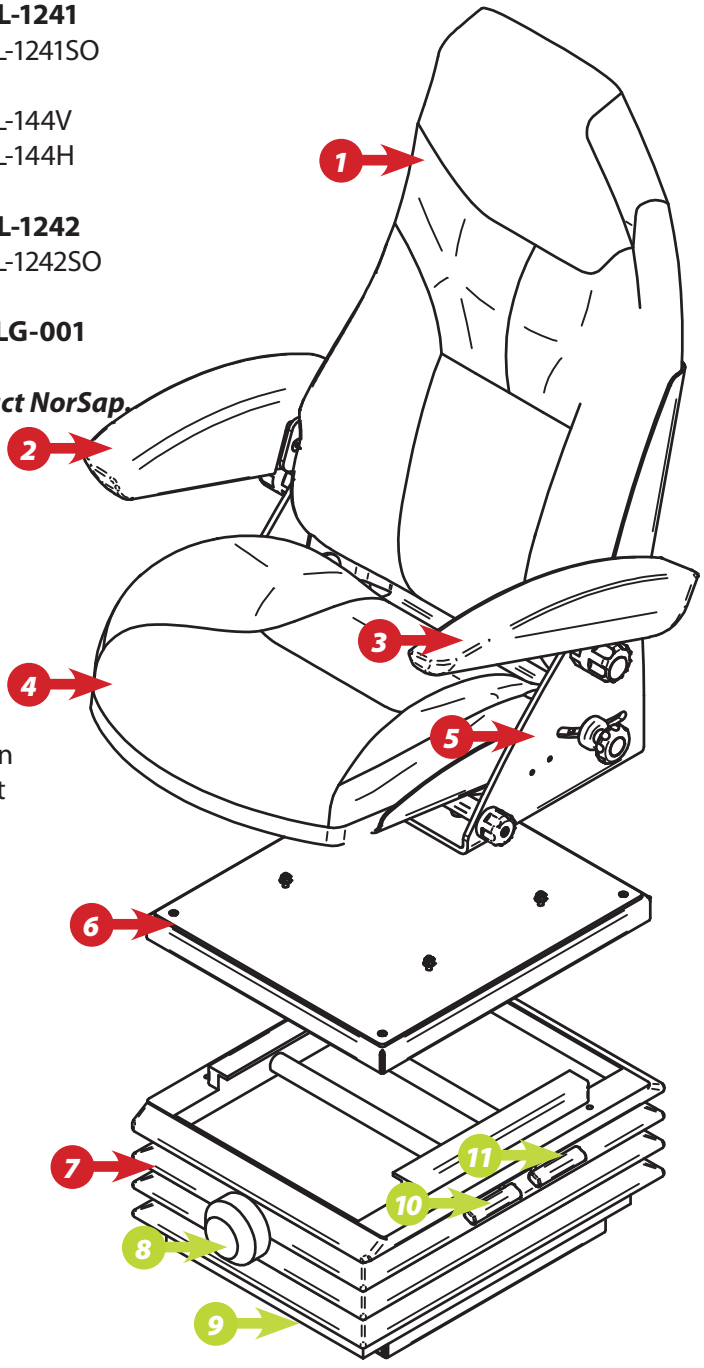
To find out what model your chair is flip up the seat and view the sticker underneath.

Pos.	Qty	Item Name	Item No.	Rev.	Details
		For article no.: 6028, 6028SO			
1		**Back rest**	**PUTE-003**		
4		**Seat rest**	**PUTE-004**		
5		**Seat top (with armrests)**	**DEL-1241**		
		Seat top in black (with armrests)	DEL-1241SO		
2		Left armrest	DEL-144V		
3		Right armrest	DEL-144H		
6		**Adaptor plate**	**DEL-1242**		
		Adaptor plate in black	DEL-1242SO		
7		**Complete column H754-504**	**BELG-001**		
		For other parts not specified please contact NorSap.			

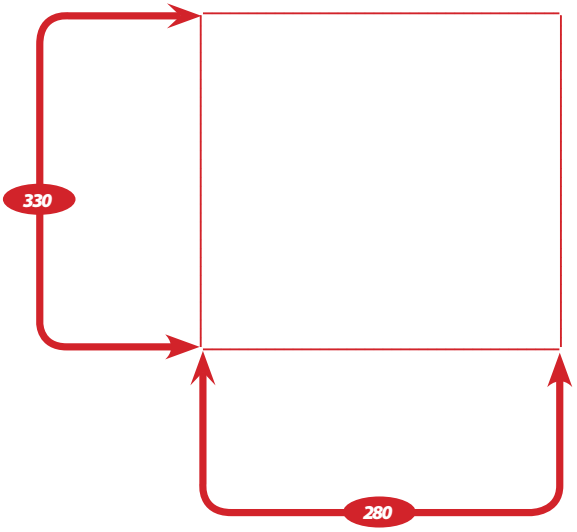
Additional functions

8	Weight controller dial
9	Glide rails release bar
10	Front angle adjust
11	Rear angle adjust

For detailed spare parts, please view the R-0009 parts list. The chair tops are almost identical, this solution does not have the glide rails under the seat frame, but at the bottom of the suspension column.



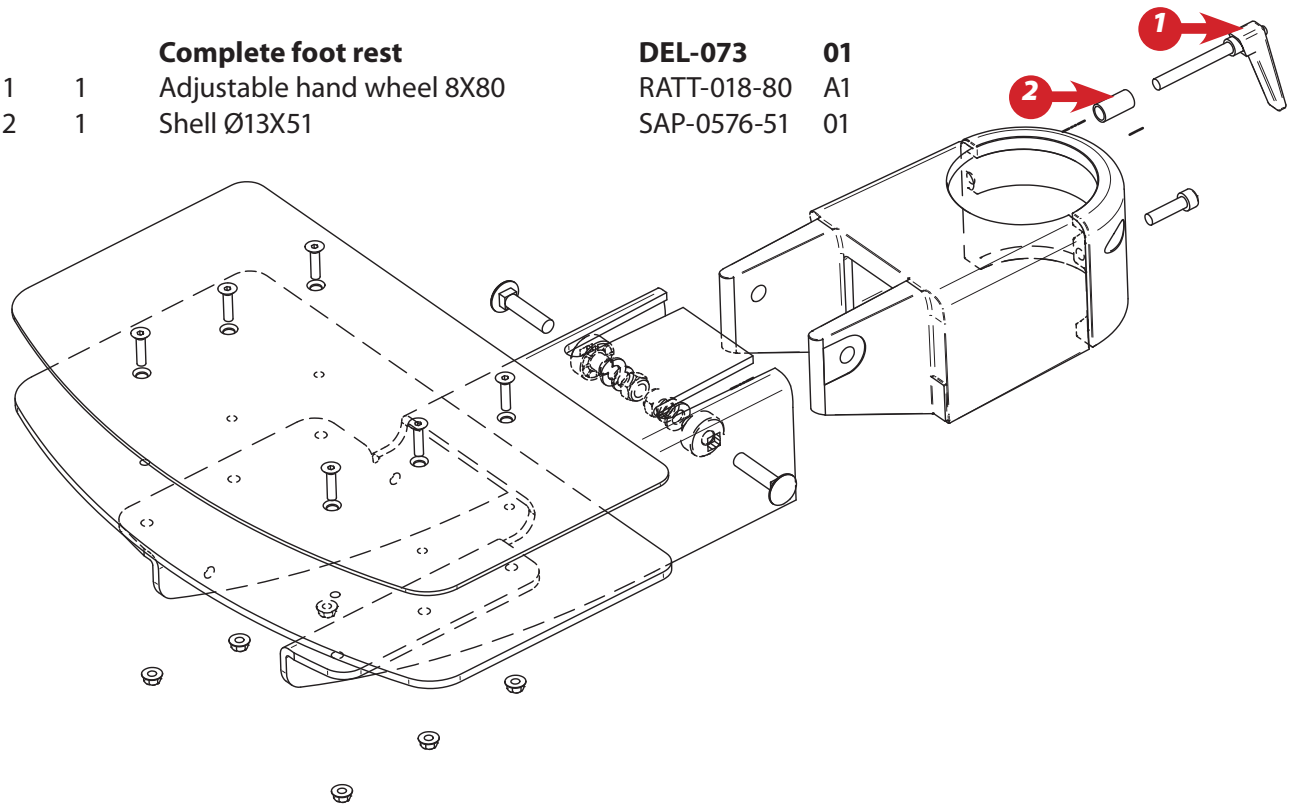
Mounting holes for the 6028



Foot rest

The NorSap 1000 comes either with or without foot rest.

Pos.	Qty	Item Name	Item No.	Rev.	Details
		Complete foot rest	**DEL-073**	**01**	
1	1	Adjustable hand wheel 8X80	RATT-018-80	A1	
2	1	Shell Ø13X51	SAP-0576-51	01	



Maintenance of moving parts

The glide parts of the chair can be lubricated with a silicone based lubricant.
If the chair is on a deck rail, its important that the deck rails railway is NOT lubricated.

Safety

All moving parts has a potential squeezing hazard. Be sure to keep hands and fingers out of moving parts areas when operating the chair.

Shipping and storage specifications

The chair should be shipped and stored in an upright condition.
No other materials should be shipped or stored on top of a the chair or deck rail.

The chair should be shipped and stored at temperatures between -20°C and +40°C.
The chair should not be operated until its been acclimatized between 0°C and +30°C.
The chair should be kept in a clean, dry environment.

Upon receipt, we recommend that the shipping packaging be immediately examined for damage. Any damage should be noted on the delivery receipt and a request for inspection by the transportation company should be made. The shipping packaging should be opened immediately and the chair or the deck rail examined for concealed shipping damage.

If the chair appears to be damaged, a concealed bad order report should be immediately filed with the transportation company.

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